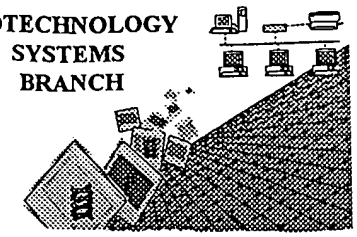
1645

BIOTECHNOLOGY
SYSTEMS
BRANCH



P#17

RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

RECEIVED
JAN 06 2003
TECH CENTER 1600/29

Application Serial Number: 09/597,796B
Source: 1600
Date Processed by STIC: 12/27/2002

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

1) **INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,**
2) **TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY**

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)
PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, **PLEASE** USE THE **CHECKER VERSION 3.1 PROGRAM**, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:
http://www.uspto.gov/web/offices/pac/checker

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.
Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.
Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<**http://www.uspto.gov/ebc/efs/downloads/documents.htm**>, **EFS Submission User Manual** - ePAVE)
2. **U.S. Postal Service:** U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202
3. **Hand Carry directly to:**
   U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7th Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202
   Or
   U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. **Federal Express, United Parcel Service, or other delivery service to:** U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 01/29/2002

09597796

1600

RAW SEQUENCE LISTING DATE: 12/27/2002
PATENT APPLICATION: US/09/597,796B TIME: 15:07:36

Input Set : A:\14058905.app
Output Set: N:\CRF4\12272002\I597796B.raw

<110> APPLICANT: Skeiky, Yasir
Reed, Steven
Alderson, Mark
Corixa Corporation
<120> TITLE OF INVENTION: Fusion Proteins of Mycobacterium Tuberculosis
<130> FILE REFERENCE: 014058-009050US
<140> CURRENT APPLICATION NUMBER: US 09/597,796B
<141> CURRENT FILING DATE: 2000-06-20
<150> PRIOR APPLICATION NUMBER: US 09/056,556
<151> PRIOR FILING DATE: 1998-04-07
<150> PRIOR APPLICATION NUMBER: US 09/223,040
<151> PRIOR FILING DATE: 1998-12-30
<150> PRIOR APPLICATION NUMBER: WO PCT/US99/07717
<151> PRIOR FILING DATE: 1999-04-07
<150> PRIOR APPLICATION NUMBER: US 09/287,849
<151> PRIOR FILING DATE: 1999-04-07
<150> PRIOR APPLICATION NUMBER: US 60/158,338
<151> PRIOR FILING DATE: 1999-10-07
<150> PRIOR APPLICATION NUMBER: US 60/158,425
<151> PRIOR FILING DATE: 1999-10-07
<160> NUMBER OF SEQ ID NOS: 30
<170> SOFTWARE: PatentIn Ver. 2.1
<210> SEQ ID NO: 1
<211> LENGTH: 588
<212> TYPE: DNA
<213> ORGANISM: Mycobacterium tuberculosis
<220> FEATURE:
<223> OTHER INFORMATION: Ra35, N-terminus of MTB32A (TbRa35FL)
<220> FEATURE:
<221> NAME/KEY: CDS
<222> LOCATION: (1)..(588)
<223> OTHER INFORMATION: Ra35
<400> SEQUENCE: 1

```
gccccgccgg ccttgtcgca ggaccggttc gccgacttcc ccgcgctgcc cctcgacccg 60
tccgcgatgg tcgcccaagt ggggccacag gtggtcaaca tcaacaccaa actgggctac 120
aacaacgccg tgggcgccgg gaccggcatc gtcatcgatc ccaacggtgt cgtgctgacc 180
aacaaccacg tgatcgcggg cgccaccgac atcaatgcgt tcagcgtcgg ctccggccaa 240
acctacggcg tcgatgtggt cgggtatgac cgcacccagg atgtcgcggt gctgcagctg 300
cgcggtgccg gtggcctacc atcggcggcg atcggtggcg gcgtcgcggt tggtgagccc 360
gtcgtcgcga tgggcaacag cggtgggcag ggcggaacgc cccgtgcggt gcctggcagg 420
gtggtcgcgc tcggccaaac cgtgcaggcg tcggattcgc tgaccggtgc cgaagagaca 480
ttgaacgggt tgatccagtt cgatgccgcg atccagcccg gtgattcggg cgggcccgtc 540
gtcaacggcc taggacaggt ggtcggtatg aacacggccg cgtcctag 588
```

RAW SEQUENCE LISTING DATE: 12/27/2002
PATENT APPLICATION: **US/09/597,796B** TIME: 15:07:36

Input Set : **A:\14058905.app**
Output Set: **N:\CRF4\12272002\I597796B.raw**

63 <210> SEQ ID NO: 2
64 <211> LENGTH: 195
65 <212> TYPE: PRT
66 <213> ORGANISM: Mycobacterium tuberculosis
68 <220> FEATURE:
69 <223> OTHER INFORMATION: Ra35, N-terminus of MTB32A (TbRa35FL)
71 <400> SEQUENCE: 2
72 Ala Pro Pro Ala Leu Ser Gln Asp Arg Phe Ala Asp Phe Pro Ala Leu
73 1 5 10 15
74 Pro Leu Asp Pro Ser Ala Met Val Ala Gln Val Gly Pro Gln Val Val
75 20 25 30
76 Asn Ile Asn Thr Lys Leu Gly Tyr Asn Asn Ala Val Gly Ala Gly Thr
77 35 40 45
78 Gly Ile Val Ile Asp Pro Asn Gly Val Val Leu Thr Asn Asn His Val
79 50 55 60
80 Ile Ala Gly Ala Thr Asp Ile Asn Ala Phe Ser Val Gly Ser Gly Gln
81 65 70 75 80
82 Thr Tyr Gly Val Asp Val Val Gly Tyr Asp Arg Thr Gln Asp Val Ala
83 85 90 95
84 Val Leu Gln Leu Arg Gly Ala Gly Gly Leu Pro Ser Ala Ala Ile Gly
85 100 105 110
86 Gly Gly Val Ala Val Gly Glu Pro Val Val Ala Met Gly Asn Ser Gly
87 115 120 125
88 Gly Gln Gly Gly Thr Pro Arg Ala Val Pro Gly Arg Val Val Ala Leu
89 130 135 140
90 Gly Gln Thr Val Gln Ala Ser Asp Ser Leu Thr Gly Ala Glu Glu Thr
91 145 150 155 160
92 Leu Asn Gly Leu Ile Gln Phe Asp Ala Ala Ile Gln Pro Gly Asp Ser
93 165 170 175
94 Gly Gly Pro Val Val Asn Gly Leu Gly Gln Val Val Gly Met Asn Thr
95 180 185 190
96 Ala Ala Ser
97 195
100 <210> SEQ ID NO: 3
101 <211> LENGTH: 1872
102 <212> TYPE: DNA
103 <213> ORGANISM: Mycobacterium tuberculosis
105 <220> FEATURE:
106 <223> OTHER INFORMATION: MTB32A (TbRa35FL) cDNA
108 <220> FEATURE:
109 <221> NAME/KEY: modified_base
110 <222> LOCATION: (1460)
111 <223> OTHER INFORMATION: n = g, a, c or t
113 <220> FEATURE:
114 <221> NAME/KEY: modified_base
115 <222> LOCATION: (1854)
116 <223> OTHER INFORMATION: n = g, a, c or t
118 <400> SEQUENCE: 3
119 gactacgttg gtgtagaaaa atcctgccgc ccggaccctt aaggctggga caatttctga 60

RAW SEQUENCE LISTING DATE: 12/27/2002
PATENT APPLICATION: US/09/597,796B TIME: 15:07:36

Input Set : A:\14058905.app
Output Set: N:\CRF4\12272002\I597796B.raw

```
120 tagctacccc gacacaggag gttacgggat gagcaattcg cgccgccgct cactcaggtg 120
121 gtcatggttg ctgagcgtgc tggctgccgt cgggctgggc ctggccacgg cgccggccca 180
122 ggcggccccg ccggccttgt cgcaggaccg gttcgccgac ttccccgcgc tgcccctcga 240
123 cccgtccgcg atggtcgccc aagtggcgcc acaggtggtc aacatcaaca ccaaactggg 300
124 ctacaacaac gccgtgggcg ccgggaccgg catcgtcatc gatcccaacg gtgtcgtgct 360
125 gaccaacaac cacgtgatcg cgggcgccac cgacatcaat gcgttcagcg tcggctccgg 420
126 ccaaacctac ggcgtcgatg tggtcgggta tgaccgcacc caggatgtcg cggtgctgca 480
127 gctgcgcggt gccggtggcc tgccgtcggc ggcgatcggt ggcggcgtcg cggttggtga 540
128 gcccgtcgtc gcgatgggca acagcggtgg gcagggcgga acgccccgtg gcggtgcctgg 600
129 cagggtggtc gcgctcggcc aaaccgtgca ggcgtcggat tcgctgaccg gtgccgaaga 660
130 gacattgaac gggttgatcc agttcgatgc cgcaatccag cccggtgatt cgggcgggcc 720
131 cgtcgtcaac ggcctaggac aggtggtcgg tatgaacacg gccgcgtccg ataacttcca 780
132 gctgtcccag ggtgggcagg gattcgccat tccgatcggg caggcgatgg cgatcgcggg 840
133 ccaaatccga tcgggtgggg ggtcacccac cgttcatatc gggcctaccg ccttcctcgg 900
134 cttgggtgtt gtcgacaaca acggcaacgg cgcacgagtc caacgcgtgg tcggaagcgc 960
135 tccggcggca agtctcggca tctccaccgg cgacgtgatc accgcggtcg acggcgctcc 1020
136 gatcaactcg gccaccgcga tggcggacgc gcttaacggg catcatcccg gtgacgtcat 1080
137 ctcggtgaac tggcaaacca agtcgggcgg cacgcgtaca gggaacgtga cattggccga 1140
138 gggacccccg gcctgatttg tcgcggatac cacccgccgg ccggccaatt ggattggcgc 1200
139 cagccgtgat tgccgcgtga gcccccgagt tccgtctccc gtgcgcgtgg cattgtggaa 1260
140 gcaatgaacg aggcagaaca cagcgttgag caccctcccg tgcagggcag ttacgtcgaa 1320
141 ggcggtgtgg tcgagcatcc ggatgccaag gacttcggca gcgccgccgc cctgcccgcc 1380
142 gatccgacct ggtttaagca cgccgtcttc tacgaggtgc tggtccgggc gttcttcgac 1440
W--> 143 gccagcgcgg acggttccgn cgatctgcgt ggactcatcg atcgcctcga ctacctgcag 1500
144 tggcttggca tcgactgcat ctgttgccgc cgttcctacg actcaccgct gcgcgacggc 1560
145 ggttacgaca ttcgcgactt ctacaaggtg ctgcccgaat tcggcaccgt cgacgatttc 1620
146 gtcgccctgg tcgacaccgc tcaccggcga ggtatccgca tcatcaccga cctggtgatg 1680
147 aatcacacct cggagtcgca cccctggttt caggagtccc gccgcgaccc agacggaccg 1740
148 tacggtgact attacgtgtg gagcgacacc agcgagcgct acaccgacgc ccggatcatc 1800
W--> 149 ttcgtcgaca ccgaagagtc gaactggtca ttcgatcctg tccgccgaca gttnctactg 1860
150 gcaccgattc tt 1872
153 <210> SEQ ID NO: 4
154 <211> LENGTH: 355
155 <212> TYPE: PRT
156 <213> ORGANISM: Mycobacterium tuberculosis
158 <220> FEATURE:
159 <223> OTHER INFORMATION: MTB32A (TbRa35FL) protein
161 <400> SEQUENCE: 4
162 Met Ser Asn Ser Arg Arg Arg Ser Leu Arg Trp Ser Trp Leu Leu Ser
163   1               5                  10                  15
164 Val Leu Ala Ala Val Gly Leu Gly Leu Ala Thr Ala Pro Ala Gln Ala
165             20                  25                  30
166 Ala Pro Pro Ala Leu Ser Gln Asp Arg Phe Ala Asp Phe Pro Ala Leu
167         35                  40                  45
168 Pro Leu Asp Pro Ser Ala Met Val Ala Gln Val Ala Pro Gln Val Val
169     50                  55                  60
170 Asn Ile Asn Thr Lys Leu Gly Tyr Asn Asn Ala Val Gly Ala Gly Thr
171 65                  70                  75                  80
172 Gly Ile Val Ile Asp Pro Asn Gly Val Val Leu Thr Asn Asn His Val
```

RAW SEQUENCE LISTING DATE: 12/27/2002
PATENT APPLICATION: US/09/597,796B TIME: 15:07:36

Input Set : A:\14058905.app
Output Set: N:\CRF4\12272002\I597796B.raw

```
173                 85                  90                  95
174 Ile Ala Gly Ala Thr Asp Ile Asn Ala Phe Ser Val Gly Ser Gly Gln
175             100                 105                 110
176 Thr Tyr Gly Val Asp Val Val Gly Tyr Asp Arg Thr Gln Asp Val Ala
177         115                 120                 125
178 Val Leu Gln Leu Arg Gly Ala Gly Gly Leu Pro Ser Ala Ala Ile Gly
179     130                 135                 140
180 Gly Gly Val Ala Val Gly Glu Pro Val Val Ala Met Gly Asn Ser Gly
181 145                 150                 155                 160
182 Gly Gln Gly Gly Thr Pro Arg Ala Val Pro Gly Arg Val Val Ala Leu
183                 165                 170                 175
184 Gly Gln Thr Val Gln Ala Ser Asp Ser Leu Thr Gly Ala Glu Glu Thr
185             180                 185                 190
186 Leu Asn Gly Leu Ile Gln Phe Asp Ala Ala Ile Gln Pro Gly Asp Ser
187         195                 200                 205
188 Gly Gly Pro Val Val Asn Gly Leu Gly Gln Val Val Gly Met Asn Thr
189     210                 215                 220
190 Ala Ala Ser Asp Asn Phe Gln Leu Ser Gln Gly Gly Gln Gly Phe Ala
191 225                 230                 235                 240
192 Ile Pro Ile Gly Gln Ala Met Ala Ile Ala Gly Gln Ile Arg Ser Gly
193                 245                 250                 255
194 Gly Gly Ser Pro Thr Val His Ile Gly Pro Thr Ala Phe Leu Gly Leu
195             260                 265                 270
196 Gly Val Val Asp Asn Asn Gly Asn Gly Ala Arg Val Gln Arg Val Val
197         275                 280                 285
198 Gly Ser Ala Pro Ala Ala Ser Leu Gly Ile Ser Thr Gly Asp Val Ile
199     290                 295                 300
200 Thr Ala Val Asp Gly Ala Pro Ile Asn Ser Ala Thr Ala Met Ala Asp
201 305                 310                 315                 320
202 Ala Leu Asn Gly His His Pro Gly Asp Val Ile Ser Val Asn Trp Gln
203                 325                 330                 335
204 Thr Lys Ser Gly Gly Thr Arg Thr Gly Asn Val Thr Leu Ala Glu Gly
205             340                 345                 350
206 Pro Pro Ala
207         355
210 <210> SEQ ID NO: 5
211 <211> LENGTH: 447
212 <212> TYPE: DNA
213 <213> ORGANISM: Mycobacterium tuberculosis
215 <220> FEATURE:
216 <223> OTHER INFORMATION: MTBRa12 C-terminus of MTB32A (Ra35FL)
218 <400> SEQUENCE: 5
219 cggtatgaac acggccgcgt ccgataactt ccagctgtcc cagggtgggc agggattcgc 60
220 cattccgatc gggcaggcga tggcgatcgc gggccagatc cgatcgggtg gggggtcacc 120
221 caccgttcat atcgggccta ccgccttcct cggcttgggt gttgtcgaca acaacggcaa 180
222 cggcgcacga gtccaacgcg tggtcgggag cgctccggcg gcaagtctcg gcatctccac 240
223 cggcgacgtg atcaccgcgg tcgacggcgc tccgatcaac tcggccaccg cgatggcgga 300
224 cgcgcttaac gggcatcatc ccggtgacgt catctcggtg aactggcaaa ccaagtcggg 360
225 cggcacgcgt acagggaacg tgacattggc cgagggaccc ccggcctgat ttcgtcgygg 420
```

RAW SEQUENCE LISTING DATE: 12/27/2002
PATENT APPLICATION: US/09/597,796B TIME: 15:07:36

Input Set : A:\14058905.app
Output Set: N:\CRF4\12272002\I597796B.raw

```
226 ataccacccg ccggccggcc aattgga                                          447
229 <210> SEQ ID NO: 6
230 <211> LENGTH: 132
231 <212> TYPE: PRT
232 <213> ORGANISM: Mycobacterium tuberculosis
234 <220> FEATURE:
235 <223> OTHER INFORMATION: MTBRa12 C-terminus of MTB32A (Ra35FL)
237 <400> SEQUENCE: 6
238 Thr Ala Ala Ser Asp Asn Phe Gln Leu Ser Gln Gly Gly Gln Gly Phe
239   1               5                  10                  15
240 Ala Ile Pro Ile Gly Gln Ala Met Ala Ile Ala Gly Gln Ile Arg Ser
241              20                  25                  30
242 Gly Gly Gly Ser Pro Thr Val His Ile Gly Pro Thr Ala Phe Leu Gly
243          35                  40                  45
244 Leu Gly Val Val Asp Asn Asn Gly Asn Gly Ala Arg Val Gln Arg Val
245      50                  55                  60
246 Val Gly Ser Ala Pro Ala Ala Ser Leu Gly Ile Ser Thr Gly Asp Val
247  65                  70                  75                  80
248 Ile Thr Ala Val Asp Gly Ala Pro Ile Asn Ser Ala Thr Ala Met Ala
249                  85                  90                  95
250 Asp Ala Leu Asn Gly His His Pro Gly Asp Val Ile Ser Val Asn Trp
251             100                 105                 110
252 Gln Thr Lys Ser Gly Gly Thr Arg Thr Gly Asn Val Thr Leu Ala Glu
253         115                 120                 125
254 Gly Pro Pro Ala
255     130
258 <210> SEQ ID NO: 7
259 <211> LENGTH: 3058
260 <212> TYPE: DNA
261 <213> ORGANISM: Mycobacterium tuberculosis
263 <220> FEATURE:
264 <223> OTHER INFORMATION: MTB39 (TbH9) cDNA full-length
266 <400> SEQUENCE: 7
267 gatcgtaccc gtgcgagtgc tcgggccgtt tgaggatgga gtgcacgtgt ctttcgtgat 60
268 ggcataccca gagatgttgg cggcggcggc tgacaccctg cagagcatcg gtgctaccac 120
269 tgtggctagc aatgccgctg cggcggcccc gacgactggg gtggtgcccc ccgctgccga 180
270 tgaggtgtcg gcgctgactg cggcgcactt cgccgcacat gcggcgatgt atcagtccgt 240
271 gagcgctcgg gctgctgcga ttcatgacca gttcgtggcc acccttgcca gcagcgccag 300
272 ctcgtatgcg gccactgaag tcgccaatgc ggcggcggcc agctaagcca ggaacagtcg 360
273 gcacgagaaa ccacgagaaa tagggacacg taatggtgga tttcggggcg ttaccaccgg 420
274 agatcaactc cgcgaggatg tacgccggcc cgggttcggc ctcgctggtg gccgcggctc 480
275 agatgtggga cagcgtggcg agtgacctgt tttcggccgc gtcggcgttt cagtcggtgg 540
276 tctggggtct gacggtgggg tcgtggatag gttcgtcggc gggtctgatg gtggcggcgg 600
277 cctcgccgta tgtggcgtgg atgagcgtca ccgcggggca ggccgagctg accgccgccc 660
278 aggtccgggt tgctgcggcg gcctacgaga cggcgtatgg gctgacggtg cccccgccgg 720
279 tgatcgccga gaaccgtgct gaactgatga ttctgatagc gaccaacctc ttggggcaaa 780
280 acacccggc gatcgcggtc aacgaggccg aatacggcga gatgtgggcc caagacgccg 840
281 ccgcgatgtt tggctacgcc gcggcgacgg cgacggcgac ggcgacgttg ctgccgttcg 900
282 aggaggcgcc ggagatgacc agcgcgggtg ggctcctcga gcaggccgcc gcggtcgagg 960
```

<210> SEQ ID NO 25
<211> LENGTH: 851
<212> TYPE: DNA
<213> ORGANISM: Mycobacterium tuberculosis
<220> FEATURE:
<223> OTHER INFORMATION: MTB39 (TbH9) cDNA
<400> SEQUENCE: 25

ctgcagggtg gcgtggatga gcgtcaccgc ggggcaggcc gagctgaccg ccgcccaggt 60
ccgggttgct gcggcggcct acgagacggc gtatgggctg acggtgcccc cgccggtgat 120
cgccgagaac cgtgctgaac tgatgattct gatagcgacc aacctcttgg ggcaaaacac 180
cccggcgatc gcggtcaacg aggccgaata cggcgagatg tgggcccaag acgccgccgc 240
gatgtttggc tacgccgcgg cgacggcgac ggcgacggcg acgttgctgc cgttcgagga 300
ggcgccggag atgaccagcg cgggtgggct cctcgagcag gccgccgcgg tcgaggaggc 360
ctccgacacc gccgcggcga accagttgat gaacaatgtg ccccaggcgc tgaaacagtt 420
ggcccagccc acgcagggca ccacgccttc ttccaagctg ggtggcctgt ggaagacggt 480
ctcgccgcat cggtcgccga tcagcaacat ggtgtcgatg gccaacaacc acatgtcgat 540
gaccaactcg ggtgtgtcga tgaccaacac cttgagctcg atgttgaagg gctttgctcc 600
ggcggcggcc gcccaggccg tgcaaaccgc ggcgcaaaac ggggtccggg cgatgagctc 660
gctgggcagc tcgctgggtt cttcgggtct gggcggtggg gtggccgcca acttgggtcg 720
ggcggcctcg gtacggtatg gtcaccggga tggcggaaaa tatgcaagt ctggtcggcg 780
gaacggtggt ccggcgtaag gtttaccccc gttttctgga tgcggtgaac ttcgtcaacg 840
gaaacagtta c 851

see P.8 for error explanation

<210> SEQ ID NO 26
<211> LENGTH: 263
<212> TYPE: PRT
<213> ORGANISM: Mycobacterium tuberculosis
<220> FEATURE:
<223> OTHER INFORMATION: MTB39 (TbH9)
<400> SEQUENCE: 26

see P7

Val Ala Trp Met Ser Val Thr Ala Gly Gln Ala Glu Leu Thr Ala Ala
1 5 10 15
Gln Val Arg Val Ala Ala Ala Ala Tyr Glu Thr Ala Tyr Gly Leu Thr
20 25 30
Val Pro Pro Pro Val Ile Ala Glu Asn Arg Ala Glu Leu Met Ile Leu
35 40 45
Ile Ala Thr Asn Leu Leu Gly Gln Asn Thr Pro Ala Ile Ala Val Asn
50 55 60
Glu Ala Glu Tyr Gly Glu Met Trp Ala Gln Asp Ala Ala Ala Met Phe
65 70 75 80
Gly Tyr Ala Ala Ala Thr Ala Thr Ala Thr Ala Thr Leu Leu Pro Phe
85 90 95
Glu Glu Ala Pro Glu Met Thr Ser Ala Gly Gly Leu Leu Glu Gln Ala
100 105 110
Ala Ala Val Glu Glu Ala Ser Asp Thr Ala Ala Ala Asn Gln Leu Met
115 120 125
Asn Asn Val Pro Gln Ala Leu Lys Gln Leu Ala Gln Pro Thr Gln Gly
130 135 140
Thr Thr Pro Ser Ser Lys Leu Gly Gly Leu Trp Lys Thr Val Ser Pro
145 150 155 160
His Arg Ser Pro Ile Ser Asn Met Val Ser Met Ala Asn Asn His Met
165 170 175
Ser Met Thr Asn Ser Gly Val Ser Met Thr Asn Thr Leu Ser Ser Met
180 185 190
Leu Lys Gly Phe Ala Pro Ala Ala Ala Ala Gln Ala Val Gln Thr Ala
195 200 205
Ala Gln Asn Gly Val Arg Ala Met Ser Ser Leu Gly Ser Ser Leu Gly

```
    210                 215                 220
Ser Ser Gly Leu Gly Gly Gly Val Ala Ala Asn Leu Gly Arg Ala Ala
225                 230                 235                 240
Ser Val Arg Tyr Gly His Arg Asp Gly Gly Lys Tyr Ala Xaa Ser Gly
                245                 250                 255
Arg Arg Asn Gly Gly Pro Ala
            260
```

see p. 8 for
explanation

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 12/27/2002
PATENT APPLICATION: US/09/597,796B TIME: 15:07:37

Input Set : A:\14058905.app
Output Set: N:\CRF4\12272002\I597796B.raw

Error Explanation

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3; N Pos. 1460,1854
Seq#:11; N Pos. 30,33,2270
Seq#:17; N Pos. 497,500,1136,1445,1487,1509,1515
Seq#:25; N Pos. 767
Seq#:26; Xaa Pos. 254

VERIFICATION SUMMARY DATE: 12/27/2002
PATENT APPLICATION: **US/09/597,796B** TIME: 15:07:37

Input Set : **A:\14058905.app**
Output Set: **N:\CRF4\12272002\I597796B.raw**

L:143 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:1440
L:149 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:1800
L:546 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0
L:583 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:2220
L:801 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:480
L:811 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:1080
L:817 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:1440
L:818 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:1500
L:1095 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:25
L:1095 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:25
L:1095 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:720
L:1139 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:26
L:1139 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:26
L:1139 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:240
L:1194 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:27